Reg.No. \_\_\_\_\_\_\_\_\_\_\_\_



**UNIVERSITY**

(Karunya Institute of Technology & Sciences)

(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

**End Semester Examination – April/May – 2017**

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| **Sub. Code:** | **14MT2027** | **Duration :** | **3hrs** |
| **Sub. Name :** | **DIGITAL MUSIC** | **Max. marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

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| Q. No. | Sub Div. | Questions | Course  Outcome | Marks |
| 1. |  | Detail about music production in stringed instruments. Derive the expression for wave equation for stringed instruments. | CO1 | 20 |
| (OR) | | | | |
| 2. |  | Explain briefly with neat labeled diagrams on music production mechanism in a flute. | CO2 | 20 |
| 3. |  | Describe the mathematical foundation about frequency doubling at an octave, perfect fourth and perfect fifth. Explain your answer by taking keyboard as reference musical instrument. | CO3 | 20 |
| (OR) | | | | |
| 4. |  | What is meant by treble clef and bass clef? How does these help musicians,Explain briefly with neat labeled diagrams . | CO3 | 20 |
| 5. |  | Write in detail about WAV and MP3 files. | CO1 | 20 |
| (OR) | | | | |
| 6. |  | Mention the significance of digital filters in digital music production. | CO2 | 20 |
| 7. |  | Explain in detail about Karplus-Strong algorithm with neat labeled diagrams. | CO1 | 20 |
| (OR) | | | | |
| 8. |  | Detail about Yamaha DX-7 synthesis and music production. | CO2 | 20 |
|  | | **Compulsory:** |  |  |
| 9. |  | Explain in detail about preference of sine waves in digital music. Also brief about response of human ear to music signals of different frequencies . | CO2 | 20 |

ALL THE BEST